

REMARKS/ARGUMENTS

In view of the amendments made to the specification and claims, and in view of the following remarks, reconsideration of the application is respectfully requested.

1. Priority

The Examiner has required that the application contain a specific reference to prior application in the first sentence of the specification or in an application data sheet in order to receive the benefit of an earlier filing date under 35 U.S.C. § 121. By the present amendment, the specification has been amended to indicate that it is a divisional of U.S. Application Serial No. 07/479,666 filed on February 13, 1990, now U.S. Patent No. 6,507,909. Applicant respectfully submits that the application is now in full compliance with 35 U.S.C. § 121 and thus should receive the benefits of an earlier filing date.

2. Drawings

The Examiner has required formal drawings in reply to this Office Action. Please note that a copy of the formal drawings has been provided herewith.

3. Claim Objections

Claim 24 has been objected to because, in line 2, the word "trust" should be replaced with the word "trusted." Additionally, the Examiner has objected to claim 35 suggesting that the first occurrence of "untrusted" in line 2 should be replaced with the word "trusted." By the present amendment, claims 24 and 35 have been amended in conformance with the Examiner's suggestions.

4. Rejections Under 35 U.S.C. § 102(e)

Claims 29-37 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Johri et al. (U.S. Patent No. 4,918,653). This rejection is respectfully traversed. By the present amendment, claims 30 and 31 have been canceled and their limitations have been incorporated into claim 29. Therefore, claim 29 now includes a step of verifying the trusted command in the trusted mode after the communicating step. Applicant

respectfully submits that this particular limitation is not found in the prior art contrary to the Examiner's assertion.

In the Office Action, it would appear that the Examiner is taking the position that pressing the Secure Attention Key equates to interpreting a trusted command in an untrusted mode and that establishing a new child process to create a trusted shell, as described in column 22, lines 25-38 of Johri et al., constitutes executing the trusted command in a trusted mode. The Examiner further indicates that, in his opinion, communication of a representation of the code trusted command in the trusted mode is made by changing a `ut_type` field for the terminal to `TSH_PROCESS`. See column 22, lines 40-46. Finally, the Examiner has indicated that verifying the trusted command in the trusted mode, as claimed in former claim 31 and now incorporated in claim 29, is anticipated by detecting the trusted shell by reading the corresponding `/ECT/UTMP` entry as disclosed in column 22, lines 53-55 of Johri et al. However, as will be discussed more fully below, a detailed reading of column 22, lines 53-55 indicates that **the patent teaches detecting a trusted shell environment, not verifying the trusted command.**

The relevant language is as follows: "when the user exits the trusted shell, init detects that it was a trusted shell by reading the corresponding `/etc/utmp` entry. It then changes the `ut_type` field for the terminal entry to `USER_PROCESS` in the `/etc/utmp` file, creates the login environment for the user including `termio` parameters, and runs the user's login program (usually a login-shell)." Clearly this language is referring to detecting the trusted shell, rather than verifying the trusted command. Therefore, the Applicant respectfully submits that this reference does not anticipate claim 29 as now amended.

In regards to claims 32-37, they depend either directly or indirectly on claim 29 and therefore should be considered allowable by virtue of their dependency. Furthermore, these claims include additional limitations considered to define patentable subject matter. For example, the prior art is not seen to disclose issuing a message indicating a transition to the untrusted mode before the transitioning step as in claim 35.

5. Rejections under 35 U.S.C. § 103

Claims 21-28 have been rejected under 35 U.S.C. § 103 (a) as being unpatentable over Johri et al. (U.S. Patent No. 4,918,653) in view of Rivest et al. (U.S. Patent No. 4,405,829). This rejection is also respectfully traversed.

The subject invention is generally directed to an efficient way for a user to communicate with a trusted shell in a computer operating environment. Specifically, the computer environment is configured to process a trusted command by parsing the trusted command in an untrusted environment and having a trusted environment to receive the trusted command from the untrusted environment and to communicate a representation of the trusted command as in claim 21. Claim 26 is a method claim substantially analogous to claim 2.

The Rivest et al. patent (U.S. Patent No. 4,405,829) is directed to a way for two people, who are unknown to each other, to pass encrypted messages back and forth without prior direct communication. According to the Rivest et al. patent, a user's public key is stored where all can see. Someone wishing to send an encrypted message to that user obtains the public key and uses it to encrypt the message. That user then decrypts the message when necessary. Applicant respectfully submits that this action is not analogous to the trusted computer environment of the present invention. Therefore, there would be no motivation for one of ordinary skill in the art to modify Johri et al.'s trusted path mechanism for an operating system by looking to a cryptographic communication system specifically directed to a way for two people, who are unknown to each other, to pass messages back and forth without prior direct communication. Indeed, obtaining a public key as taught by Rivest et al. is an action totally contrary to the overall method of the subject invention, let alone being an obvious action to take.

In regards to claims 22-25 and 27-28, they depend either directly or indirectly on claims 21 and 26 respectively and therefore should be considered allowable by virtue of their dependency. Also, dependent claims 22-25 and 27-28 include additional limitations which are seen to be independently patentable. For example, the limitations regarding

the trusted environment executing a trusted command if the trusted environment detects confirmation of the trusted command as recited in claims 22 and 27 is not seen in the prior art. The limitation of displaying a representation of the trusted command, as in claim 28, also does not appear in the prior art.

6. Allowable Subject Matter

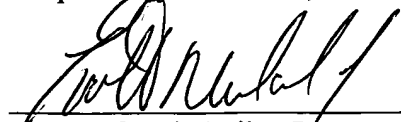
Applicant notes the appreciation that the Examiner has indicated claims 38-41 as allowed.

7. Information Disclosure Statement

The Applicant, in the utmost of the good faith and candor with the Patent Office, would like to make the Examiner aware of U.S. Patent Application Serial No. 09/515,384 which represents another pending divisional application stemming from the same parent application of the present case. The enclosed IDS merely makes of record the art cited in the related case, even though the subject matter claimed is patentably distinct as evidenced by the prior presented restriction requirement.

For the foregoing reasons, and the amendments to the specification and claims, it is respectfully requested that all the claims be allowed and the application expeditiously pass to issue. If the Examiner should have any questions concerning the allowance of this application, he is cordially invited to contact the undersigned at the number provided below if it would further expedite the prosecution.

Respectfully submitted,



Everett G. Diederiks, Jr.
Attorney for Applicant
Reg. No. 33,323

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DIEDERIKS & WHITELAW, PLC
12471 Dillingham Square, #301
Woodbridge, VA 22192
Tel: (703) 583-8300
Fax: (703) 583-8301